

IMPROVED BATTERY GRID ELECTRODE

ABSTRACT OF THE INVENTION

[0047] A positive electrode for a lead-acid battery having a heat-treated metal grid with an interconnected grain structure, wherein the grid is heat-treated after being at least partially coated with a paste containing lead. Also disclosed is a method of making a positive electrode for a lead-acid battery including applying a lead containing paste to a metal grid to produce a pasted grid, heating the pasted grid at a temperature and relative humidity sufficient to produce a cured grid, heat treating the cured grid at a temperature of at least about 125°C, for a period of time sufficient to produce an interconnected grain structure within the grid to produce a heat treated grid, and forming the electrode by assembling the heat treated grid into an electrochemical cell including a negative electrode and a sulfuric acid electrolyte, wherein an electric current is passed through the cell to convert at least a portion of the cured paste into lead dioxide.